

of fem-distal grafts but pop-distal complications were picked up at 6/12 or >1 year.

Conclusions: The majority of occlusions/stenoses were identified at 6/12. However, there were temporal differences according to bypass type, suggesting procedure-specific surveillance programmes could save costs and unnecessary appointments.

0949: USING STATISTICAL PROCESS CONTROL (SPC) CHARTS FOR MONITORING OF SURGICAL PERFORMANCE IN VASCULAR SURGERY: A CASE STUDY AND COMPARISON OF TWO MONITORING METHODS

Amour Patel, Buket Ertansel, Abdullah Jibawi. *Royal Free Hampstead Hospital, London, UK*

Background: the technique of prospective monitoring of surgical performance has replaced the traditional audit models in different clinical settings. Risk-adjusted cumulative sum (CUSUM)-type charts and variable life-adjusted display (VLAD) charts are of special interest for quality improvement

Method: some 25129 patients on the national vascular database who underwent abdominal aortic aneurysm repair were analysed. A risk-adjusted CUSUM chart, a risk-adjusted sequential probability ratio test (SPRT) chart and a VLAD chart with prediction limits chart were used to detect excess deaths.

Results: control charts from two centres are shown in order to illustrate the main features of SPC monitoring systems. A risk-adjusted CUSUM model is shown and is compared with non-risk adjusted CUSUM and VLAD techniques. Selecting the control limit based on the simulation results of average run length using the method of fractional polynomials to produce a closed-form relationship between the average run length, control limit, and acceptable rate of failure are also described.

Conclusion: risk-adjusted CUSUM technique are shown to be reliable, accurate and intuitive technique that can reliably detect outliers in major vascular surgery.

1015: ENDOVENOUS LASER THERAPY (EVLT) FOR THE TREATMENT OF LONG AND SHORT SAPHENOUS VARICOSE VEINS

Pallavi Mudugal, Hayley Heffernan, Iraj Zeynali, P.F. Mason, D.R. Jones. *Southport District General Hospital, Southport, UK*

Aim: A prospective audit to evaluate the safety, complications and effectiveness of EVLT.

Method: A prospective audit which collected data from 2006 till 2011. No exclusion criteria. Incidence of complications, effects on pre-procedure leg ulcers, further procedures needed post-op and the percentage of ablation were recorded.

Results: 1689 patients were included. M:F 537:1152. Median age 59 years (range 18–97). Complications were numbness (1.1%), phlebitis and inflammation (6.4%), wound complications (0.23%), neuralgia (0.059%), and DVT (0.11%). The most common complication was residual veins (54%), of these 74% had sclerotherapy. 37% patients had no complications. 17 of 68 leg ulcers healed completely post-procedure. 440 patients had post-procedure duplex scan, 89% had completely ablated veins.

Conclusion: Our study demonstrated that EVLT can be safely used for the treatment of varicose veins with low complication rates. EVLT can be used in patients with severe co morbidities. Treat leg ulcers secondary to venous insufficiency. The major disadvantage of EVLT is a significant number of patients need sclerotherapy for residual veins following the procedure and there is a lack of long term follow-up.

1047: COMPARISON OF OPERATIVE OUTCOMES OF LAPAROSCOPIC VERSUS OPEN REPAIR OF ABDOMINAL AORTIC ANEURYSMS – A PROSPECTIVE STUDY OF A SINGLE CENTRE LEARNING EXPERIENCE

Mark Salji, Peter Gogalniceanu, T.K. Ho, Simon Mackenzie, Peter Patient, Sohail Choksy, Christopher Backhouse, Roger Motson, Adam Howard. *Colchester Hospital University Foundation Trust, Colchester, UK*

Aims: To prospectively compare the outcomes of consecutive laparoscopic and laparoscopic-assisted abdominal aortic aneurysm (AAA) repairs (LAR) with open AAA repairs (OAR) during the learning curve for the laparoscopic approach.

Method: Prospective data on 80 patients (2007–2012) were analysed. 38 LAR and 42 OAR were recruited. Treatment allocation was by patient choice in individuals not suitable for endovascular repair.

Results: LAR had a lower median time to mobilisation (1 vs. 4 days, $p = 0.03$) and shorter scar length (14 vs. 30cm, $p < 0.0001$).

There was no difference in median clamp time (80 vs. 74 min, $p = 0.24$), blood loss (1.3 vs. 1.1 L, $p = 0.76$) or length of stay (6 vs. 9 days, $p = 0.92$), however LAR featured higher median operative time (5.5 vs. 4hrs, $p < 0.0001$). The rate of major and minor complications, intraoperative adverse events ($p = 0.4$) and inpatient mortality ($p = 0.6$) were similar between the two groups.

Conclusion: Early results suggest that LAR offers faster recovery mobilisation with smaller incisions and less pain compared to OAR. The greater LAR operative times do not appear to affect intra or post-operative outcomes. Further experience and operative volume is needed to decrease dissection time.

1054: QUALITY OF LIFE AFTER ENDOVASCULAR ABDOMINAL ANEURYSM REPAIR (EVAR)

Sofronis Loizides, Anastasia Hadjivassiliou, Nicholas Law. *Chase Farm Hospital, London, UK*

Aims: To assess the quality of life after EVAR.

Methods: Between February 2009 and January 2011 43 patients underwent elective EVAR at our Trust. A questionnaire addressing post-operative quality of life was sent to all patients.

Results: 38 patients (88%) returned the questionnaires with mean follow-up of 12.3 months. Average age was 77.5 years and 78.9% were male.

When patients were asked to compare their pre and post-operative health 71.1% felt equally as well or better than before surgery. Physical health limited regular daily activities in 60.5% of patients in the immediate postoperative period reducing to 31.6% in the last 4 weeks prior to completing the questionnaire. Emotional problems limited 63.2% of patients in the immediate post-operative period but in the last 4 weeks before completing the questionnaire only 26.3% of patients reported significant emotional issues.

Conclusions: Our results support that patients' physical and emotional quality of life is significantly affected in the early post-operative period after EVAR but subsequently improves. EVAR is performed in an old population with other comorbidities, which might act as a confounding factor when reporting on health quality. Enhanced rehabilitation and community support might improve quality of health after EVAR.

1124: PERIPHERAL LIMB SALVAGE WITH CONTINUOUS CATHETER DELIVERED THROMBOLYSIS, AN ALTERNATIVE PERCUTANEOUS RADIOLOGICAL OPTION: A CASE SERIES

Pranav Patel, Nizar Damani, Kevin Rosenfeld, Sanjeev Sarin. *West Herts NHS Trust, Department of Vascular and Interventional Radiology, Watford, Hertfordshire, UK*

Aim: Intravascular catheter delivered thrombolysis is well recognised for treatment of acute arterial occlusive disease. We aim to report the efficacy of peripherally placed catheters for limb salvage in arterial and veno-occlusive disease.

Methods: A prospective analysis was conducted of all patients undergoing percutaneous catheter delivered thrombolysis for peripheral limb salvage in a single centre. All procedures were performed by two operators between 2009–2011. Indications were acute arterial occlusion (AO) or proximal venous thrombosis (VT) with phlegmasia cerulea dolens. Serial vascular duplex studies (VDS) were performed at 1, 5, 10 and 30 days post procedure to assess thrombus regression. End-points were morbidity and successful return of limb function.

Results: 19 cases were performed during the period of study, 8 male and 11 female patients. Mean age 69 years (range 32–86 years). 12 patients underwent thrombolysis for acute AO, 7 for VT. All cases showed VDS evidence of thrombosis regression at 5 days. All other patients regained limb function, with minimal residual thrombus on VDS at day 30.

Conclusion: Peripheral catheter delivered thrombolysis is a valuable treatment option in complex distal vascular occlusive disease. It may be an initial or staged measure for elderly not suitable for major revascularisation.